

**Notice of Allowability**

Application No.

09/510,061

Examiner

Rabon Sergent

Applicant(s)

HOBEL ET AL.

Art Unit

1711

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed August 5, 2005.
2. ☒ The allowed claim(s) is/are 1-14 and 16-24.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. EP98/05487.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

*Rabon Sergent*  
**RABON SERGENT**  
**PRIMARY EXAMINER**

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Amend claims 1 and 10 as follows:

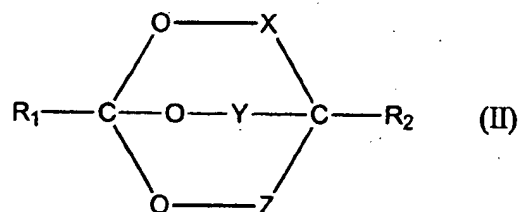
1. **(Currently Amended)** A coating composition comprising a compound comprising at least one bicyclo-orthoester group having latent hydroxyl groups and at least one hydroxyl reactive functional group represented by the following formula I



wherein

x and y are independently selected from 1 to 10;

A has the structure according to the following formula II



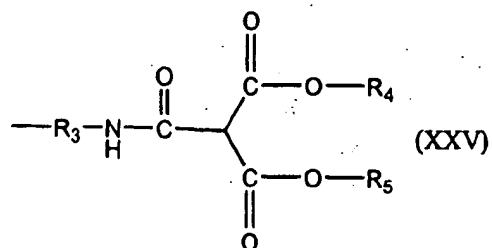
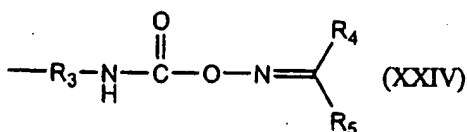
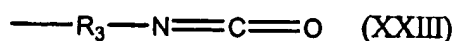
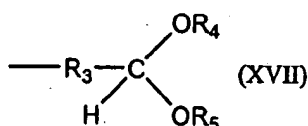
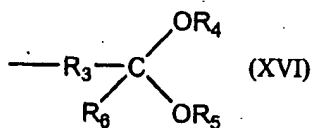
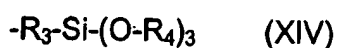
wherein

X and Z are independently from each other selected from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

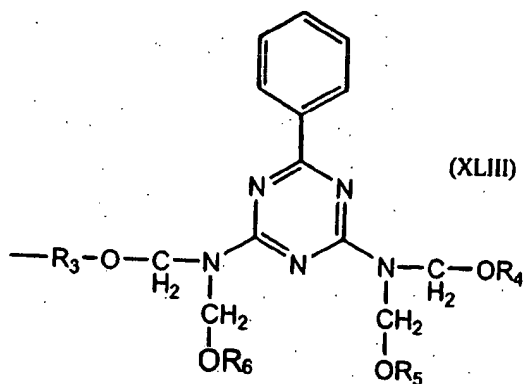
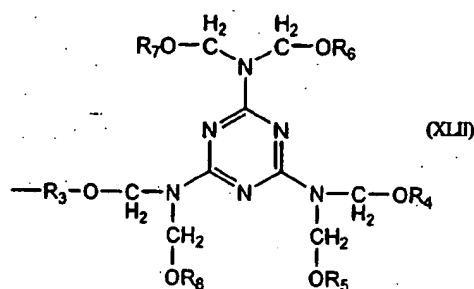
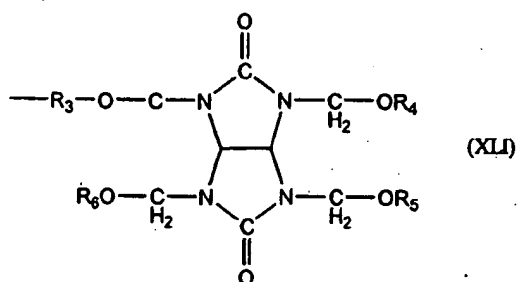
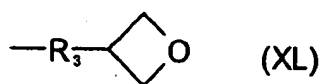
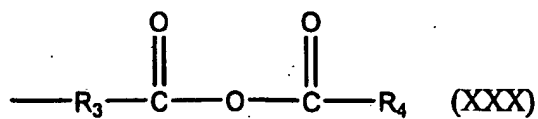
Y is nothing or is selected independently of X and Z from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

**B is a divalent radical of aromatic, aliphatic, cycloaliphatic, and araliphatic hydrocarbon groups having 1-40 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, phosphorus atoms, sulphone groups, sulphony groups, amine groups, amide groups, urea groups, urethane groups, and/or ester groups; ester groups; ether groups; amide groups; thioester groups; thioamide groups; urethane groups; or urea groups;**

**C is a hydroxyl reactive functional group selected from the following formulae:**



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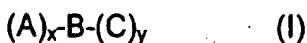


wherein  $R_3$  is selected from the group of alk(en)ylene groups having 1-10 carbon atoms which groups are linear or branched and optionally contain one or more

ether, ester, urea, urethane, amide, and/or amine groups, and  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  are independently from each other selected from the group of alk(en)yl groups having 1-10 carbon atoms which groups are linear or branched.

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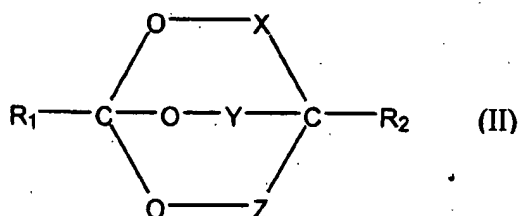
10. (Currently Amended) A coating composition comprising a first compound comprising at least one bicyclo-orthoester group and at least one other functional group wherein said first compound is either 4-ethyl-1-(ethoxycarbonylmethyl)2,6,7-trioxabicyclo[2.2.2]octane or represented by the following formula I



wherein

x and y are independently selected from 1 to 10;

A has the structure according to the following formula II



wherein

X and Z are independently from each other selected from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

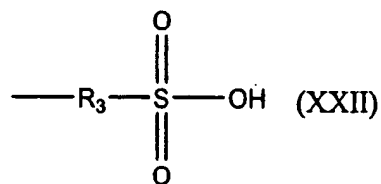
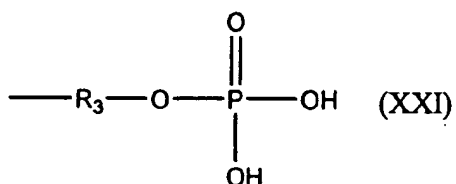
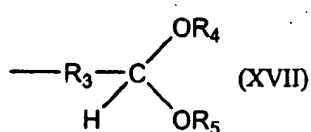
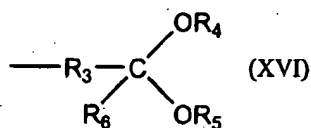
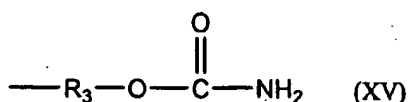
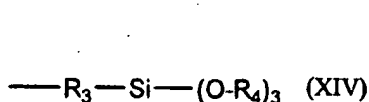
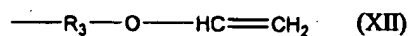
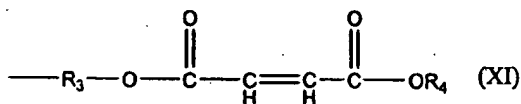
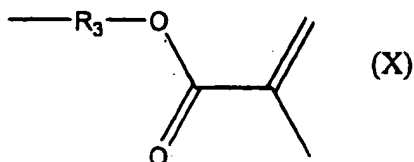
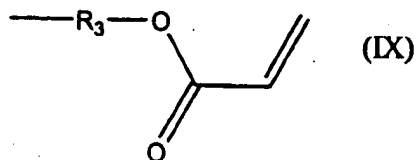
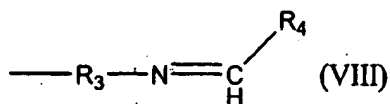
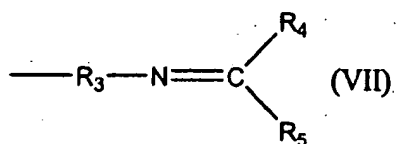
Y is nothing or is selected independently of X and Z from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

one of R<sub>1</sub> and R<sub>2</sub> is a monovalent radical of hydrogen, hydroxyl or alk(en)yl groups having 1-30 carbon atoms which are linear or branched and optionally contains oxygen atoms, nitrogen atoms, sulphur atoms, and/or ester groups;  
the other of R<sub>1</sub> and R<sub>2</sub> is a divalent radical with alk(en)ylene groups having 1-10 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, and/or ester groups;

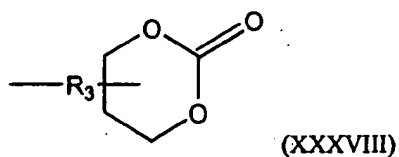
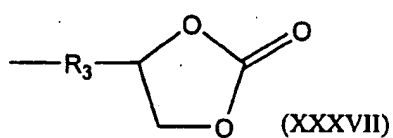
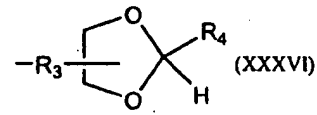
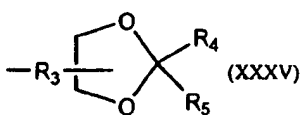
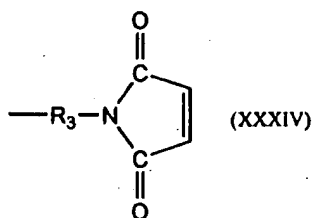
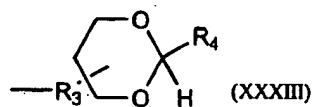
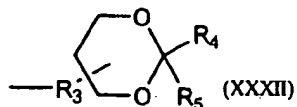
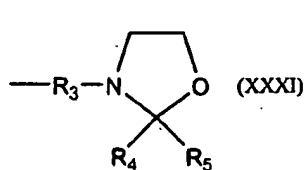
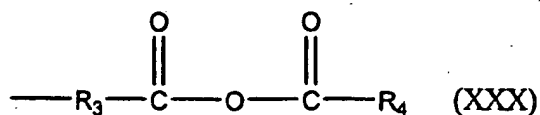
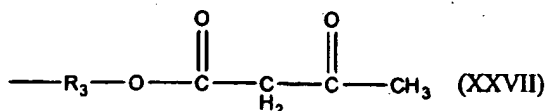
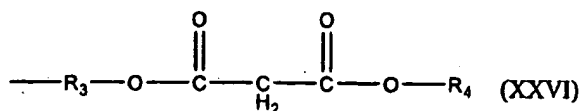
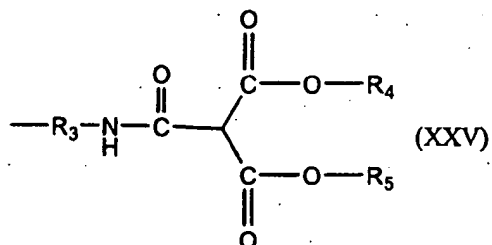
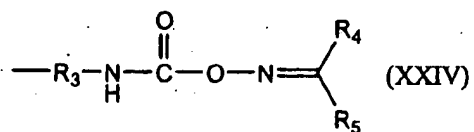
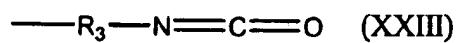
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B is a divalent radical of aromatic, aliphatic, cycloaliphatic, and araliphatic hydrocarbon groups having 1-40 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, phosphorus atoms, sulphone groups, sulphony groups, amine groups, amide groups, urea groups, urethane groups, and/or ester groups; ester groups; ether groups; amide groups; thioester groups; thioamide groups; urethane groups; or urea groups;

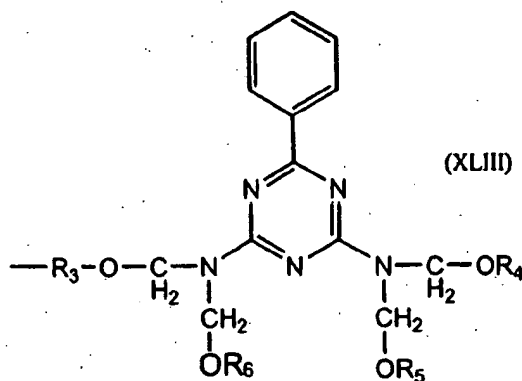
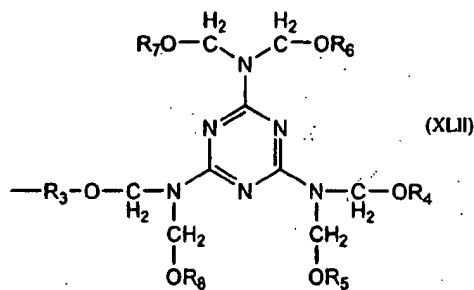
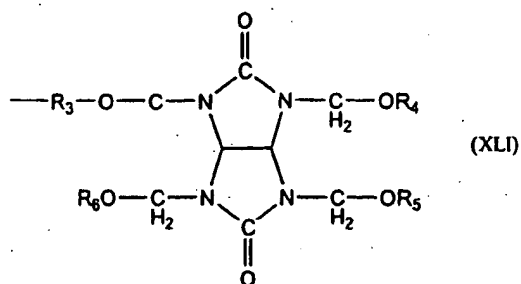
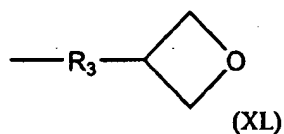
C is a functional group selected from the following formulae:



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wherein  $R_3$  is an alk(en)ylene group having 1-10 carbon atoms which groups are linear or branched and optionally contain ether, ester, urea, urethane, amide, and/or amine groups, and  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  are independently from each other selected from alk(en)yl groups having 1-10 carbon atoms which groups are linear or branched,

wherein the coating composition comprises a second compound comprising at least two hydroxyl reactive groups of isocyanate, epoxy, acetal, carboxyl, anhydride, and/or alkoxy silane groups, or the second compound is an amino resin.



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This amendment is necessary to correct obvious typographical errors within the R variables of formula (XLIII) within claims 1 and 10. The amendment serves only to clarify the identity of the R variables within the formula.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

  
RABON SERGENT  
PRIMARY EXAMINER

R. Sergent  
August 24, 2005

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The following is an examiner's statement of reasons for allowance:

The prior art rejection of claims 10, 11, 16-19, and 24 in view of Hall et al. ('798) has been withdrawn in view of applicants' arguments within the response of August 5, 2005 and in view of further consideration of the reference. Though the examiner does not agree that the term "resin" should be construed as narrowly as argued by applicants, the examiner agrees that the term, "relatively low molecular weight resins" (column 3, lines 23 and 24 of the reference), refers to a low molecular weight polymerization product of the disclosed bicycloorthoester monomer, as opposed to the monomer, itself. Accordingly, it is agreed that the reference fails to recite a composition of the bicycloorthoester monomer and an isocyanate functional reactant.

The prior art rejection of claims 1-6, 10-13, 16-20, and 24 in view of WO 97/31073 or van den Berg et al. ('329 or '479) has been withdrawn in view of applicants' arguments set forth within the response of August 5, 2005.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

  
RABON SERGENT  
PRIMARY EXAMINER

R. Sergent  
August 24, 2005